EDITORIAL NOTES.

The Royal College of Veterinary Surgeons has decided to take action on the question submitted it by the "Horse Commission" cencerning hereditary diseases. We do not wish to interfere with or anticipate this enquiry, nor do we think our proposal can have any such effect. We propose that our readers should send us facts bearing upon the question, for which we might reserve a special column. As to spavins, splints, side-bones, and roaring, the influence of heredity is beyond doubt, but there are differences of opinion in the profession as to ring-bones, curbs, some diseases of the eye, and certain forms of foot disease. Statements should be either the result of direct observation, or sufficiently well authenticated to be beyond doubt.

Practitioners whose experience includes pedigree stock ought to be able to supply most valuable information, as their patients are usually capable of more prolonged observation and their parentage and offspring more easily identified. The question is one of the greatest utility and the profession must not allow this opportunity of proving its public value to be lost.

We have to thank our contributors for responding to our appeal for Clinical cases. Such a number have arrived that we are obliged to hold over till next week some of great interest.

We notice that many practitioners enclose letters diffidently saying, that if we do not consider their communications good enough we may put them into the waste-paper basket. We shall not hesitate to do this, but it is a very difficult matter to decide when a honest report of a case seen in practice is "not good enough" for publication. We prefer to publish all we receive. Our science is essentially an inductive one and without facts we cannot progress. Erroneous deductions are pretty sure to bring their own corrections, either by comparison with other cases, or by the direct opposition of correspondents.

Whilst we appreciate the form and style of any communication, we place it second in importance to correct observation and honest statement. Clinical cases with a post-mortem to finish with may not be desirable in practice—they are very much so in a journal. Failures in diagnosis require some moral courage to publish, but the profession thoroughly appreciates the man who dares, and is not much deceived by the writer whose only cases are brilliantly successful.

We have decided to close our Students' Column until the Schools open in October. We shall then offer two questions—one for men who have passed the second examination and one for those who have not. A small money prize will be attached to each, but the friendly rivalry we hope to instigate, is the motive we look to for producing candidates. The practice in writing entailed, will bring its reward when more serious examinations have to be faced.

CLINICAL NOTES.

"Careful observation makes a skilful practitioner but his skill dies with him. By recording his observations he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of Pathological Science."

FILARIA OCULI—Its Operative Removal,

By J. H. Steel, F.R.C.V.S., A.V.D.,
Superintendent Bombay Veterinary College.

The following cases were dealt with at three stations in India, two of the stations being on the dry red soil uplands, the other one on the coast alluvium, not much importance must be attributed to this distribution, for certainly all the cases did not appear at the stations where they were operated on. Breed, caste as we call it in India, had no appreciable effect, for of these cases one was a waler, another a thorough-bred, a third was a gulph-arab, the others were country breds. Age and sex have no influence in the matter apparently, and horses fed hard or kept well are not exempt from this parasitic invasion. I saw no reason to associate the disease either with enzootic paralysis (kumree) as some veterinary observers have done, nor with worm colic due to mesenteric aneurism. Cocaine has now superseded chloroform as an anœsthetic in this operation.

Case I. was operated on by myself and another veterinary surgeon. It was my first case of the kind, so I read up the subject and followed the instructions given. It is sometime ago and I have improved my methods since, so the result will serve to "point a moral." The horse was thrown in the usual way; chloroform was not given; the eye speculum was inserted but caused so much irritation that it had to be removed; the supero-posterior part of the cornea was selected as the seat of puncture, and some delay was experienced in getting the eye steady enough to ensure this exact position being hit on, care was taken to make the puncture as near the edge of the transparent cornea as possible. The puncture was made successfully with an abscess lancet, and in a proper oblique manner to the cornea and gentle pressure was exerted on the eyeball to make the aqueous humour squirt out and bring the worm with it. The aqueous *did* squirt out and did bring the worm with it, but also a fold of the iris, which became imprisoned in the incision, the latter was enlarged by the rolling of the eye directly it was punctured, a few drops of vitreous came with the iris and efforts to return the protruding parts only made things worse. The animal rose, was put in a dark stall with a wet cloth over his eye, and the general irritation subsided, the protruded iris became the seat of fungous growth and the eye was lost. By this case I learned: *to give chloroform in such operations, not to attempt to use the eye speculum, not to make the puncture at any fixed spot but to be guided by the exigencies of the case, to use a common lancet not an abscess lancet, to specially avoid pressure on the eyeball during the operation.*

Case II. A recent case of eyeworm—thrown, given chloroform, operation just about to commence, when rotation of the eyeball such as results from chloroform began, more of the anœsthetic given the eye became quiescent, puncture was made promptly, a mere touch with the lancet, the worm, a small one, came out freely, was kept as a specimen, and the eye was quite clear and well in less than a fortnight. Conclusions: *get your case as early as possible, be on the look out for the rolling of the eyeball, and puncture sharply and straight through the cornea.*

Case III. A horse which had been sometime in the infirmary reported as having ophthalmia in one eye, not noticed the night before; a large worm present, cornea somewhat opaque but worm plainly visible. The animal thrown and operated on successfully. The puncture was very small and just over the worm, which wriggled its way out becoming entangled in the wound, but gradually working out on to the front of the eyeball, whence it was transferred into a bottle. The aqueous chambers filled with blood to my consternation, but this subsided to the lower part of the chamber and very quickly became absorbed, The eye became clear, but a small white spot remained to denote the seat of operation. Conclusions: *a very recently inflamed cornea will sometimes bleed into the aqueous chamber, but this does not matter, the blood will be rapidly and wholly absorbed; a worm partly out of the eye will come out altogether if left alone, subsequent experience has confirmed this view, possibly interference might break the worm and part remain in the eye.*

Case IV. An opacity of the eye of long standing but not intense, a small worm, apparently dead detectible. It is reputed that a dead worm is absorbed but no change was detectible after a month's watching: operated at request of owner, worm did not come away with aqueous humour, forceps inserted through wound, worm grasped and withdrawn, wound healed without opacity at seat of operation, but the general opacity remained as before. Conclusions: *It does no harm to remove by insertion of an instrument a worm which does not come away of its own accord, long-standing opacity can not be removed by operative interference; we want more exact evidence on the point whether a dead worm is absorbed from the aqueous chamber.*

Case V. Also a long-standing case but worm active and the opacity only occupying part of the cornea, like a rising moon in shape. The worm very lively and puncture could not be made directly over it, aqueous humour came out and worm lay in the empty chamber, apparently this was not comfortable, for he gradually wriggled his way to the opening and came out. Eye did well, but moon-shaped opacity remained. Conclusions: *If worm does not come out directly don't be in a hurry to remove him by insertion of an instrument, nor, on the other hand let the horse up with the intention of letting the chamber fill again, and the stigma of failure in operation left on yourself. Watch the eye for a time, and only when you judge the effect of the chloroform will shortly pass off, use instruments for extraction.*

Case VI. An old horse and fairly recent case: worm not distinctly visible, but emerged with the aqueous humour and was lost. Aqueous chamber filled with blood which gradually became absorbed and white clots for a time hung on the edge of the iris. These disappeared and the eye cleared up but always remained a little opaque. Conclusions: *Though the worm is not found it does not necessarily remain in the eye: when the cornea is too opaque to enable us to detect whether it is there or not, it is best to assume that escape has taken place. Removal of the worm may lessen but not completely remove opacity.*

Case VII. A horse brought for examination as to soundness. A white line about $\frac{1}{8}$ in. long by one twentieth in. wide detected on the cornea, probably from operation for removal of Filaria. Examining the eye sideways the iris was found to be firmly adherent to the cornea at this point and here only. This condition noted in Certificate of "practical soundness." Conclusion: *in India the effects of puncture of the aqueous chamber not to be forgotten.*

Remarks. Many of your readers belonging to the A.V.D., have doubtless, much experience of such eye operations, and it would be a good thing if they placed them on record. I have had many much more extraordinary cases than the above narrated to me, and they should find a place in our literature for guidance of us and our successors. Still, simple cases have a value, we learn something from each one if we observe it properly; so I trust the above record will be admitted to your columns.

UNIQUE INJURY TO THE TONGUE.

By Henry Smith, M.R.C.V.S., Worthing.

On the morning of the 7th of August, I was called to a seven year old black gelding said to have refused his food. The horse—one of a pair regularly driven in a gentleman's carriage—had been under treatment for the previous fortnight for influenza, and was drenched over-night by the attendant. I found the animal standing looking at his food, holding his head rather to one side, nose slightly protruded, and at intervals slowly moving his jaws either from left to right, or *vice versa*, but no saliva running. These symptoms at once drew my attention to the mouth, where I found the tongue firmly fixed on the right tush, and considerably swollen and inflamed round the seat of the injury. The wound was dressed and treated antiseptically, and is now (August 14th) nearly well. The interest of this case is, How did it occur? Could it be by administering the draught, and if so, how? The coachman, a very steady careful man, had frequently given medicine for me before, and was not in the habit of taking the tongue out, Would it be likely to have occurred from a slight abrasion existing on the ventral surface of the tongue and becoming entangled on the tush, the pain causing the animal to close his jaws?

VETERINARY MEDICAL SOCIETIES.

THE CENTRAL VETERINARY MEDICAL SOCIETY.

(SECOND NOTICE).

Referring to Mr. Edgar's observations with regard to "Fowl Cholera," Professor Axe thought the symptoms described were such as are observed in the disease commonly known in this country as "Roup." The subject of fowl-diseases was much in need of attention from the Veterinary Profession, and he expressed the hope that members would bring their experience, and their cases, more frequently to the notice of the Society. To what extent the diseases of fowls were capable of being transmitted to quadrupeds and to man, and *vice versa*, was a most interesting and pressing question.

Mr. VILLAR having understood Mr. Edgar to allude to two distinct outbreaks of Anthrax in pigs, enquired if in both cases, bacillus anthracis had been found to exist in the blood, his reason for asking was that some days ago he was called in to see a dead sow, she was in very good condition and had eaten her breakfast in the morning but was found dead in the afternoon, he saw her the morning after her death; the external appearances of the carcase were just what one would expect to find in anthrax, in fact were what he had observed before in that disease in pigs, there was a blood-tinged froth about the nostrils, the throat was enormously swollen, body tympanitic, and the subcutaneous tissue emphysematous. He made a post-mortem examination and here again he found the appearances of anthrax, there were congestions, effusions, and extravasations in the internal organs, and subendocardial extravasation was marked. He made a number of careful microscopic examinations of the blood but was unable to find any bacillus anthracis.

Professor AXE had no doubt that the disease referred to by Mr. Villar was anthrax, better known perhaps to some as diphtheria and to others as malignant œdema. He (Professor Axe) had frequently seen it prevail side by side with typical anthrax both in the ox, horse and sheep, and on several occasions it had arisen after consuming the flesh and blood of animals having died of the disease. A good deal of difficulty had been experienced in actually demonstrating the nature of the malady, owing to the rapidity with which the anthrax organism disappears from the blood and tissues of the pig after death. Dr. Crookshank had however been successful in demonstrating the existence of the bacillus anthracis in the bodies of pigs dying from induced anthrax, where all the symptoms recited by Mr. Villar were present. It is well known to comparative pathologists that necrosis of the tonsillitic glands and pharyngeal mucous membrane is almost invariably present to a greater or less extent in anthrax affecting the pig. He believed Dr. Crookshank regards these throat lesions as the channel whereby septic bacteria gain entry to the body during life, and the early disappearance of the anthrax organisms after death would appear to be referable to the overpowering and destructive influence of the former over the latter.

When pigs become suddenly ill and die quickly after acute swelling of the throat and neck, with diffuse congestion and hœmorrhage into the skin, anthrax may be pretty safely affirmed to exist.

In reply to Mr. MULVEY, Mr. Edgar said that a microscopical, but not a chemical examination, was made of the fish-bone manure, but it was without result. The President doubted if the outbreaks of anthrax were due to the fish-bone manure, and could not agree that there was no other possible source of infection in the cases cited. Mr. Samson stated that for fourteen years fish-manure had been used largely in his neighbourhood, but he had never heard of any bad results from it, either in the shape of anthrax or other disease.

Mr. MULVEY considered it would have been interesting to know where the hay used in the cases Mr. Edgar mentioned had come from—two years ago a very extensive outbreak of anthrax occurred in Newcastle, and scores of animals, both horses and cattle died, this outbreak was undoubtedly produced by the hay the animals had consumed.

Mr. Edgar then at considerably length replied to the questions which had been raised during the discussion,

Mr. OATWAY exhibited a very interesting specimen consisting of the ruptured spleen of a valuable brood mare, which had died on the day previous from internal hœmorrhage.

Votes of thanks were unanimously accorded to Mr. Edgar for bringing forward his subject, and to Mr. Oatway for his morbid specimen, and the proceedings were brought to a close.

BORDER COUNTIES VETERINARY MEDICAL SOCIETY.

An ordinary meeting of the above Society was held in the Bush Hotel, Carlisle, on Friday, August 3rd. Mr. J. J. Bell, M.R.C.V.S., Carlisle, President of the Society, presided, and a fair number of members turned up. Amongst the business was the election of Mr. R. Rutherford, F.R.C.V.S., Edinburgh, as a member. The President also announced that he had received a most satisfactory reply from Mr. James Lowther, M.P., respecting the exemption of Veterinary Surgeons from the horse-tax. On the motion of Mr. Jno. Armstrong, Penrith, a letter of condolence was agreed to be sent to the daughter of the late Mr. Harrison, M.R.C.V.S., of Warcop, Penrith, who was an old and esteemed member of the Society. After which Dr. H. J. Webb, B.Sc., Principal of the Agricultural College, Aspatria, gave a lecture on some of the poisonous plants of Great Britain; illustrating his remarks with specimens collected in the district. In his introduction Dr. Webb said, that the subject of his lecture was suggested by the poisoning of some cattle, in his neighbourhood, by eating water-hemlock. He

referred to some plants being poisonous as a means of self preservation, whilst others protected themselves by developing prickles or points such as the thistle, nettle, thorn, bramble, etc. In other words it was a case of the struggle for existence, or survival of the fittest. The Doctor then proceeded to consider some of the specimens of the commonest and most deadly of the poisonous plants. He said that there were certain natural orders famous for containing a large number of those, in England, for instance, the order Ranunculaceæ which contains the Aconite, or Monkshood. The Hellebore and several others of that class are poisonous. He then took the order Atropaceæ, which includes the deadly nightshade or belladonna, the woody nightshade, and others. Besides these, he mentioned the Scrophulariaceæ, which has the foxglove or digitalis; and the order Umbelliferæ, which contains the largest number of poisonous plants, such as the hemlock, water-hemlock, fools' parsley, etc. He then said that it was well known that plants of the butter-cup order are poisonous, especially those which grow near water. There are, generally, three poisonous principles in plants—irritant, narcotic, or narcotico-irritant. The ordinary butter-cup is an irritant poison, but being unpleasant to the taste, it is avoided by cattle. Fortunately, on drying, the poison of the butter-cup is dissipated, so that in hay it is not only non-poisonous but highly nutritious on account of its containing such a large amount of mucilaginous compounds. The most poisonous plant of this order, he said, was the aconite, which is largely used in medicine, and is sometimes mistaken for horse-radish. The Doctor then proceeded to the order Umbelliferæ, showing specimens. The commonest plant of this order is the hemlock, which was well known in ancient Greece as the plant from which Socrates' deadly potion was prepared. The fools parsley is so called because in its young state it resembles the leaves of parsley. All the Umbelliferæ are poisonous, but plants of this order may be easily made out, by the mousey odour given off when bruised. The cowbane or water-hemlock and the dropwort also belong to the above class. In the Roundhill case, where four cows died suddenly; on examining the pastures, at the request of Mr. Henry Thompson, M.R.C.V.S., of Aspatria, the doctor found the cowbane growing in a ditch with the heads bitten off by the cattle. The animals were removed and no more cases occured. The doctor then refers to the digitalis or foxglove, and the deadly nightshade or belladonna. The latter he said, is very scarce, and the only plants he had seen growing wild in this part were at Furness Abbey, in Lancashire. He named three different kinds, the poisonous principle being the same in all of them. Even the common potato being of this order, the potato apple, or fruit, is poisonous. He named the tomato and the thorn-apple as belonging to this order. He then mentioned that the largest number of poisoning cases was from eating the yew, every part of which is poisonous, except the skin of the berries. The doctor named the various fungi, particularly the ergot of Rye, concluding his remarks by saying that poisoning by vegetables or their alkaloids was very difficult to detect, and that strong coffee was recommended in narcotic poisoning, but he would be glad to hear some of the gentlemen present give their experiences in these cases, as he was anxious to do some work in the matter.

Mr. Thompson of Aspatria, opened the discussion by describing the cases at Roundhill. He said he was called in to consult with Mr. Little of Abbey Town. The post mortem revealed nothing particular, only that the lining membrane of the three first stomachs peeled off as easily as if it had been boiled, and the ingesta had a sour smell. The symptoms were;—head elevated, wild staring glassy eyes, pupils dilated, singed looking coat, sides flattened, belly pendulous, breathing slow and heavy, standing over on fetlocks, trembling and convulsions, and as Dr. Webb had said, death was attributed to cowbane. Mr. Thompson also referred to some sheep being poisoned by eating the green leaves of foxglove, when the ground was covered with snow, and to a case where two cows had died from eating rye-corn just on the point of ripening, the animals having all the symptoms of stomach or grass staggers.

Mr. Pears of Penrith, described cases of sheep poisoning from eating rhododendrons, when he had used charcoal successfully.

Mr. Armstrong also described cases of rhododendron poisoning.

Mr. Donald of Wigton, criticised Dr. Webb at some length, differing from the Doctor on many points, and creating a very instructive and interesting discussion.

Mr. Howe of Keswick, mentioned some cases where death was attributed to eating alsyke clover.

Mr. Bell, the President, proposed a vote of thanks to Dr. Webb, for his valuable paper. He himself, had often suspected vegetable poisoning in some of his cases, but had no facts on which to base his conclusions. He agreed with Mr. Thompson that yew was more deadly when it had laid for some time, and he was pleased that such an instructive and useful lecture had been given during his presidency.

In reply Dr. Webb said that many vegetable alkaloids were dissipated on drying, rendered inocuous on account of the loss of water.

Mr. Thompson then exhibited the following specimens, and made observations on each:—

1.—A three pronged thorn, (each prong about 6 inches long, and attached to a common stem) which he had removed from the pharynx of a carthorse, where it had been located for three weeks, while the horse had been in a registered practitioner's hands for influenza, and had become quite emaciated.

2.—An ordinary darning needle taken from a cow's throat where it had been for three days.

3.—Large overgrown last molar tooth extracted from the lower jaw of a cow.

4.—A stone found in the lining membrane of the œsophageal canal, at the entrance to the third stomach; peculiar symptom, a continuous cough.

A lively discussion was entered into on all these subjects.

NATIONAL VETERINARY ASSOCIATION.

MAJOR SUBJECT III.

Some Diseases of the Foot of the Horse,

By Fred Smith,
Professor, Army Veterinary School, Aldershot.

There can be no doubt that we are yet far from understanding the correct physiology of the horse's hoof, in spite of the immense amount which has been written on the subject; there can equally be no doubt that a clear and better understanding of the function of the foot would help us materially in dealing with the treatment of the diseases affecting it.

Respecting the Physiology of the foot I would briefly say that I hold the three following axioms to be undoubted facts.

1. The foot expands and contracts at the heel every time that weight is imposed upon and removed from it.
2. The Pedal bone descends in the hoof every time the limb comes to the ground and ascends each time the weight is taken off it.
3. The perforans tendon where it passes under the navicular bone largely assists in supporting the *weight* of the body.

The first axiom is denied, I believe, by the majority of the profession, and accepted by a few; of these some believe that the expansion is backwards and forwards, whilst others believe it to be lateral expansion; I subscribe to both views. I believe it to be proved by

1. The ease with which feet may be made to expand by a mechanical contrivance.
2. By the polished appearance on the foot surface of the heels of old shoes,
3. By the contraction which occurs as the result of the disease or accident when pressure is taken off the foot.
4. By the results obtained by my side bone operation.

The second axiom is proved by the ease with which the pedal bone may be pressed down in feet through which, for purposes of demonstration, a section has been made; as soon as the pressure is removed from the coffin bone it rises by virtue of the elasticity of the tissues in which it is suspended; the direction of the descent is downwards and forwards; the extent of the descent is about the $\frac{1}{8}$ to one sixteenth of an inch; the object of it is to faciliate the circulation in the foot.

The third axiom most people would perhaps subscribe to, though I think that perhaps some may not estimate it at its true value.

The weight borne on the navicular bone and perforans tendon is enormous. This may be proved by examining the navicular bursa of animals which through accidents have stood persistently in one position, or with nearly the entire weight on one limb—the foot of course to be examined is the sound one. The bursa will be found dry, the tendon discoloured even eroded as if scraped up with a knife; the fibro-cartilage of the navicular bone is much absorbed, and in very bad cases the bone is bare, particularly at or on either side of the central ridge; looking again at the tendon there will be found, perhaps, a complete imprint of the navicular bone on its surface, and all around the circumference of this imprint the delicate membrane covering the tendon will be found gorged with vessels. This is not the only bursa in which we see these changes as the result of continuous dead pressure, we also find them in the sesamoid bursa, the part being *quite dry*, tendons discoloured and shrivelled, the fibro-cartilage on the posterior face of the sesamoids greatly absorbed, and on looking into the cavity of the joint we find the articular cartilage of the sesamoids almost entirely removed, and on the posterior face of the metacarpal articulation will be seen a *most perfect impression of the sesamoid bones;* the cartilage at this part is eroded and the bone nearly bare; we will find similar changes in the knee and other joints, and in fact it may be safely predicted that if a horse has stood for six or eight weeks or a longer period in one position throwing, say, all his weight on to the near fore limb owing to an accident or injury to the off fore, *that if the sound limb be* examined after death many or all of the changes described above will be found. One thing is certain, and that is the navicular bursa will not be found in a normal condition.

NAVICULAR DISEASE.

I have pointed out that the normal structure of the navicular bone predisposes it to congestion, for we find that the canals which lodge the vessels are much larger than the vessels themselves; moreover, the vessels pass into the bone through and above the fibres of the inferior navicular ligament; I believe that some interference with the full blood supply takes place during progression, and that at the end of work a physiological congestion occurs, which is favoured by the size of the channels in the bone. In this way may also be explained the stiffness in starting on a journey of a horse the subject of this disease, we know that after he warms up to his work he goes comparatively sound, due as generally explained to an increased flow of synovial fluid into the bursa. I think the explanation is the temporary relief of congestion in the bone by the increased circulation of a smaller bulk of fluid in it.

Physiological congestion of the navicular bone is therefore an important factor in the production of the disease.

Compression as a cause of navicular disease is of extreme importance; the compression I allude to is that imposed upon the bone from above by the column which rests on it, and the pressure exercised on the inferio-posterior face by the perforans tendon in counteracting this weight.

We know that the compression to which the navicular bones of the fore limbs are exposed is something enormous—a horse weighing 1000 lbs. throws 187½ lbs. more weight on his fore legs than on his hind, and the total amount of weight on his fore legs is about 600 lbs., or 300 lbs. on each. This will give one an idea of what I mean by compression. So satisfied am I as to the potency of this cause, that I think I could safely undertake to

give a horse navicular disease by keeping him racked up for three or four months, or to keep one fore leg strapped up for three or four hours daily, or simply by keeping him standing in one position in the stable without exercise. I am positive on this point, for I have known horses contract navicular disease by simply standing in the stable.

One of the explanations why navicular disease does not occur in the hind feet is that they have not the same weight imposed upon them, but more particularly because the hind legs are being alternately rested and thus the compression moved from the bone. I have elsewhere said, that if horses would only rest their fore feet in the same way as they do their hind feet, navicular would be a very rare instead of a very common complaint. *It is only when it is too late* that a horse learns how to ease his fore navicular bones from pressure.

Concussion as a cause of navicular I have but little faith in, for my experience is that we generally meet with the disease in those feet which are not liable to concussion.

Senile navicular disease is very common. If one examines the navicular bursæ of old horses, there will be found but few which have escaped undergoing change of some sort. It may be limited to erosion of the perforans tendon and absorption of the navicular fibro cartilage, or the bone may be more actively diseased even to ulceration, but the latter is rare.

I would briefly state that as the result of a very large number of Post Mortem examinations I recognise three forms of navicular disease.

The first is characterised by absorption and staining of the fibro-cartilage covering the bone, with staining and erosion of the perforans tendon.

The second by absorption and staining of the fibro-cartilage, the bone being studded with millet-seed-like deposits of calcareous matter, with staining and erosion of the tendon.

The third change is either one or all the above with ulceration of the cartilage, caries of the bone, and erosion of the tendon.

Whatever the changes may be in the navicular bursa I believe that they all have a primary origin in the bone, and that any other lesions are subsequent to this.

In my monograph on Navicular disease I have stated:—

"Neither the length of time an animal has been lame, nor the intensity of its lameness, bear any proportion to the pathological changes which have occurred. I have been surprised when examining the navicular bursa of long-standing cases (two and a half to three years), to find so little change; I have been equally surprised in cases or only six months or so to find what extensive changes have occurred; I have been more than surprised to find an amount of disease equal to the above in animals which have positively never been lame."

"The causes operating to produce these differences are difficult to determine A great deal I imagine must depend upon the power the bone has of resisting inflammatory changes—while it progresses rapidly in one form, the bone being structurally weak, it takes a slow course in another from the resistance it experiences."

"Of one thing I feel convinced, and it is this, that the calcareous deposits on the bone are the results of inflammatory change; that it is an attempt to strengthen and not break down the bony material, and so far as my experience goes *we never find caries of the bone where there is any large deposition of lime salts on its surface.*"

There are certain important practical lessons to be learned from the above, the most particular being that we are quite unable when recommending treatment to pass any definite opinion as to how long the patient may be useful to his owner;—we may recommend immediate sale, and yet the horse have twelve months' more work left in him—we may recommend neurectomy which may disappoint owner and veterinary surgeon, for the reason that the disease was already too far advanced for the operation to be of any permanent service; or we may set our face against the operation, the horse be sold, operated upon in other hands and two or more years' work obtained from him. I say it is quite impossible to avoid these circumstances owing to the peculiarities of the disease.

I have but little to say about the symptoms of navicular lameness as they are too well known to the profession. The intermittent nature of the lameness, "pointing" of the foot, alterations in its shape, are our only trustworthy guides, and before all these are thoroughly developed we may be for weeks in a state of uncertainty as to what the changes are which are occurring inside. In many cases I know of nothing which can shorten this period of uncertainty, all we can say is—obscure foot lameness; we may hazard the diagnosis of navicular, but it is awkward when in due course the lameness disappears and never returns again. For our client's information it is, while we are in such a state of doubt, quite permissible to describe the case as one of sprain inside the foot; a truthful history of the case from the client is all important. I cannot too clearly or too forcibly impress upon the profession the chances of navicular disease arising after a prolonged rest in the stable or standing in one position.

The only treatment to adopt, if we are quite satisfied as to the nature of the lameness, is that of neurectomy after reducing the inflammation by cold applications and rest. During the time the latter is being carried out the horse should be in a roomy loose box where he can freely walk about, or else he should get half an hour's walking exercise daily.

In judging of the suitability of a case for neurectomy our patient must comply with the following conditions:

He must not be too old
He must have good eyesight,
Clean good legs.
Good feet, viz: plenty of wall and sole.
At least average action before the lameness set in.
The disease in a comparatively early stage.

If these conditions cannot be complied with do not operate, for in my opinion the case will bring but little credit.

In operating avoid making a small incision, or else sufficient of the nerve will not be removed, and lameness will recur in three months after. Never perform the high operation until the low has failed, which it will not do if sufficient (at least one inch) of the nerve be removed. Always operate by the bloodless method: it saves time, is clean, blunders or bungles are never known to any but yourself, and the tight tourniquet produces nearly complete anœsthesia of the foot and limb. Lastly, send the patient to walking exercise as soon as the inflammation around the wound has subsided; he should be trotting long before the wounds have healed, the parts being of course protected.

LAMINITIS.

I have previously stated that the sensitive foot of the horse sinks and rises within the horny foot every time the weight is put upon or taken off the limb. The descent or ascent is probably the $\frac{1}{8}$ to one sixteenth of an inch, and at each movement blood is forced through the vessels more rapidly than before. Whoever doubts this let him make a section, vertical or horizontal, through the foot and see the thing for himself. The vessels of the laminæ are capable of considerable physiological congestion; this congestion is relieved by pressure exerted on the vessels by the weight of the animal.

The laminæ support the horse's weight, the strain on them is very great, so much so that they often give way when they are exposed, as on board ship, to constant tension. The laminæ certainly run from above downwards and forwards, but they do not all support the horse's weight in the same manner. Those at the toe for instance support the weight by the dovetail being vertical but as we get further towards the quarters the dovetailing is now becoming horizontal, and at the heels is quite horizontal. The weight of the body is supported at the anterior part of the foot by straight laminæ, at the quarter of the hoof by oblique layers of laminæ, and at the heels by laminæ which are almost horizontal.

When a horse suffers from laminitis, the portion of the foot, (and the only portion in my experience) to become affected is the anterior part—the posterior quarters and heels are never affected. (Those who doubt this statement will see its correctness when they think of the clinical features of the disease.)

The cause of this is that the laminæ at the anterior part of the foot are exposed to considerably more strain than those at the posterior part owing to the arrangement of the structure.

I am somewhat at a loss to understand how laminitis is produced by feeding on certain kinds of grain; I have no experience of this cause, but suppose that the disease is due to a poison contained in or produced by the nitrogenous matter whilst undergoing digestion.

There can be no doubt that we meet with in practice acute and sub-acute laminitis; either of these may become chronic. Chronic laminitis following on an attack of the acute form is generally associated with structural changes in the foot, whereas the chronic form of the sub-acute variety is not so associated.

Sub-acute laminitis might well be termed congestion of the laminæ for this I believe to be the pathological condition; the symptoms are never so urgent as in the acute form, but I am of opinion that the affection is almost as intractable as navicular disease.

Once permanent dilatation of the vessels of the laminæ occurs, it is very seldom in my experience, that they ever again regain their normal size.

The treatment for such cases should be steady *regular* work, bar-shoes, and cold applications to the feet.

The treatment for acute laminitis is too well known to need discussion; the only part of the treatment that I propose speaking of is the operative.

The pain in laminitis is caused by the extreme tension inside the foot, due to swelling of the sensitive laminæ within a practically unyielding structure. As a result of the swelling separation of the laminæ occurs, and the weight of the horse, with other mechanical factors, causes the toe of the pedal bone to descend, and disorganization to occur.

Perhaps we have no disease of the horse more painful and prolonged than acute laminitis, and one can hardly handle the disorganized feet which adorn the shelves of our museums, without a feeling of intense pity for their unhappy possessor.

I do, however, conscientiously believe that we have now a means of treatment to hand which will in the future prove a boon to both patient and client.

When acute laminitis passes the second, third or fourth day, unrelieved, we may take it for granted that structural changes are almost certain to occur. Delay now is sheer madness, no time must be lost in liberating tension, preventing further separation, and giving exit to the inflammatory products, For this purpose I counsel sawing completely through the horny wall in two or three places until the insensitive laminæ are reached.

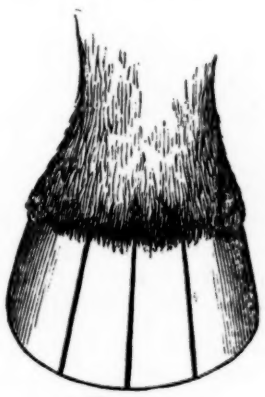

FIG. I.

Shews the position and direction of the sections in the wall of the foot for the laminitis operation.

One incision should be through the toe and one in each quarter extending from the coronet to ground surface of the foot, and isolating a portion of the wall two inches on either side of a central line drawn at the toe; (see Fig. I.) this portion

of the wall is completely isolated by dividing the connection between it and the sole until the sensitive parts are reached; these may be exposed sufficiently to allow fluid to drain off if any has formed, and also in order to admit of effective blood letting from the circumflex vessels.

The wall is not sufficiently liberated unless it can be freely moved inward and outward by the fingers; the most difficult part to freely divide is near the coronet but to readily affect this an instrument is now obtainable,

Relief is almost immediate; shoes may or may not be put on, but in either case the isolated portion of wall is relieved from any ground pressure by lowering it with a knife or rasp until it is above the general level of the foot.

The patient is best operated upon whilst down; unless the saw is a very good one and properly set the proceeding takes a little time, but we should never feel satisfied until we are assured the wall in three places from the coronet to the ground is divided throughout its total thickness and length as far as the insensitive laminæ.

If the operation be performed early, a foot so treated is saved from entire destruction.

The after treatment will depend upon the practitioner's fancy. If shoes are put on, the isolated portion of wall should not be allowed to rest on them. My own idea of the subsequent treatment is cold wet applications to the feet, bar-shoes and exercise.

When the case has recovered the incisions can be filled in with pitch. It is a mistake to suppose that these incisions can only disappear by growing down; they get greatly filled up by an *outgrowth* of the horny laminæ.

The changes occurring in the feet during acute laminitis teach us a little respecting the physiology of some parts of the foot. It clearly demonstrates that the horny are secreted by the sensitive laminæ, also if the horny laminæ are not exposed to great external pressure they grow to a great thickness; we see this at the toe in making sections of laminitic feet. Through the pedal bone dropping, the sensitive laminæ secrete fresh supply of horny material, but owing to the distance which separates the toe of the bone from the wall of the foot the laminæ become of a great thickness. I have examined feet in acute laminitis and have found a portion of horn a complete cast of the sensitive wall with horny laminæ *on both sides of it;* the first horny laminæ were the original ones, the second layer was that formed after separation occurred: all this had taken place in about six weeks.

OSSIFIED CARTILAGES.

"I take it that the lameness in Side-bones is due to the pressure exerted on the sensitive laminæ by the enlarged and rigid cartilage on the one hand, and the unyielding wall on the other. It occurred to me that if this was the case, the lameness could be removed if I relieved the laminæ from pressure, and the foot from tension, by making such incisions into the horny wall of the foot as would permit it to bulge, or, at any rate, would permit the enlarging cartilage to be accommodated without pressure on the delicate and sensitive parts covering it. This is the *rationale* of the operation which I first performed on horse E 30, 12th Royal Lancers, on 4th October, 1883.

"As soon as I am satisfied that I have a case of lameness due to ossification, or partial ossification of the lateral cartilage, I prepare to relieve the sensitive laminæ from pressure, *and to increase the size of the foot* for the accommodation of the gradually enlarging cartilage. This is accomplished by sawing through the wall of the foot in two or more places, until I have passed through its entire thickness, from the coronary band to the ground surface, taking care I go no deeper than the outside of the horny laminæ.

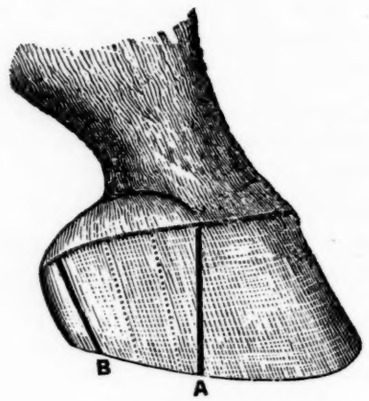

FIG. II.

Shews the position and direction of the incisions through the wall of the foot for the side bone operation.
A and *B* primary incisions, the dotted lines show the secondary incisions.

"As the result of a certain amount of experience in the operation, I would lay down the following as a guide to its performance.

"Mark on the wall of the foot (while the latter is on the ground) the distance forward that the enlarged cartilage can be felt, and from this point draw a vertical line to the ground so as to cut the fibres, not in the direction of their length, but crosswise; the object of this is to secure as much foot as possible to nail to; next mark the posterior extremity of the cartilage, and this time draw a line in the direction of the fibres, to terminate on the wall just in front of the inflection of the heel; between the anterior and posterior incisions other sections may be made, if considered necessary, so as to further release the wall. This was suggested to me by Mr. Poyser, A.V.D., and I have tried it in two cases; it is yet too early to pass an opinion as to whether these secondary incisions are advantageous. [Since this was written I have found out that the secondary incisions are of value]. The foot is now ready for operation, the shoe being removed, and no means of restraint employed, as the procedure is quite painless: with a short sharp saw, kept well oiled, the wall is cut through; the most difficult part to manage is the upper portion, near the coronet, as the latter is liable to be touched

by the teeth of the saw. Try and saw perfectly level, so as to cut the wall the same depth throughout; as we get deeper the instrument must be worked with a lighter hand, and at the *first sign of flinching*, withdraw it at once; proceed, then, with the next incision in exactly the same way. The foot all this time is held up by an assistant close to the elbow in order to steady it; [or drawn forward and placed on his thighs in the position of "clenching up"; this is the only position I work in now that I have a special saw for the operation] it is now placed between the knees, and with a fine searcher, the wall is gradually separated from the sole by a narrow groove between the anterior and posterior incisions, until specks of blood appear, or the animal commences to flinch, when the operation is completed so far as that half of the foot is concerned. A bar-shoe is now applied and the bearing taken off the loosened wall, which by this time should easily spring under the pressure of the thumb; if it does not so spring, the incisions are either not deep enough or long enough, and the operation will surely fail. To prevent dirt getting into the incisions, fill them in with hard soap, and now a peculiar fact will be seen: suppose that all the incisions are carefully filled in flush with the wall, and the horse is then made to trot, it will be found on again looking at the foot, that the soap from most of the incisions, particularly the rear ones, *has been squeezed out*, or partly so, caused, I take it, by the expansion of the foot bringing the sides of the incisions together. Another demonstration of the expansion of the foot is afforded by the fact that an incision made in the wall when the foot is off the ground, which will admit of the saw working freely, will, when the weight is on the limb, "grip" the saw, and it cannot be worked. I am perfectly aware that my deductions will not be accepted by many, but the experimental facts still remain.

"About a fortnight or three weeks after the operation, it may be necessary to deepen the incisions, as they soon come together, especially towards the inferior part of the wall, and, moreover, they appear to fill up from below and become shallower.

"One of the principal parts of the treatment is to keep the patient either at work or exercise.

"For a day or two after the operation the lameness may appear more marked, but this is only to be expected; it will soon pass off. Later it may be observed that the coronet is gradually bulging over the side-bone, and the wall will grow down with this bulge, which may be accepted as a most satisfactory result. The extent of the bulging may be known by measurement, both before and a week or two after the operation. I have lately heard of a case where the coronet enlarged no less than 2 inches four weeks after operation, and the horse went sound."

A saw is now obtainable from Messrs. Arnold and Sons for performing the operation with facility. The teeth are set well apart so as to cut a fairly wide groove; the extremity of the saw is rounded and the teeth are set the reverse way, so that the coronet incisions can be made with facility by a succession of *downward* stokes; a handle being fixed on the top of the blade of the saw for additional comfort and leverage is a great advantage, it can be removed at pleasure. A knife is also obtainable for cutting the groove between the wall and sole. See Figs. III. and IV.

FIG. III.

FIG. IV.

ROYAL COLLEGE OF VETERINARY SURGEONS.

Quarterly Meeting of Council, held July 26th, 1888.

Professor PRITCHARD, President, in the chair.

Present:—Messrs. Barford and Briggs; Professor Brown, C.B.; Messrs. Carter, Cartledge, J. Roalfe Cox, and Dray; Professor Duguid; General Sir F. Fitzwygram; Dr. Fleming, C.B.; Messrs. Greaves and Mulvey; Sir Henry Simpson; Messrs. Jas. Simpson, Stephenson, and P. Taylor; Professor Walley; Messrs. Whittle, Wilson, Woods, Wragg, Thatcher (Solicitor), and the Secretary.

The SECRETARY read the notice convening the meeting. The minutes of the last meeting were taken as read.

Sir HENRY SIMPSON said he had given notices of motion to the Secretary for them to be entered on the agenda, and received an acknowledgement stating that they would be duly recorded. He wished to say that a special meeting was not required. Some time ago the Solicitor stated that all Council meetings were general ones, except for the alteration of bye-laws. With regard to the proposed addition to Bye-law No. 4, the Charter laid it down that no alteration in the bye-laws could be discussed until it had been suspended for three months after notice given at a Council meeting. Notice of the proposed addition was only given in May, so that the three months had not yet expired.

CORRESPONDENCE.

Letters were announced from:

Mr. Wilson and Mr. Stephenson, thanking the Council for the honour of their election.

From the Royal Commission on Horse breeding, and from the Royal Agricultural Society, suggesting a conference of members of the profession on the question of "Soundness,"

Dr. Fleming said this was a very important matter. Hitherto the veterinary profession had been entrusted with the duty of examining horses and reporting whether they were sound or not, especially for stud purposes. He thought the Royal College of Veterinary Surgeons should accept the offer which had been made, and undertake the duty of reporting to the Commission as to the defects which should disqualify a horse for breeding purposes. He therefore thought that a committee should be appointed to draw up a report which should be worthy of the College.

Professor Walley agreed with Dr. Fleming as to the importance of this subject. It affected England more than Scotland, because in the Agricultural Society of Scotland the question of "soundness" seldom or never arose, or in other words there was no examination for "soundness."

Mr. Stephenson considered that no investigation and no committee would settle this question. They might all agree that spavins, ringbone, &c., constituted "unsoundness," but the difficulty arose when one professional man said a horse had a spavin and another said it had not.

Mr. Wilson said the point was what were the diseases which rendered a horse unsound for breeding purposes. He suggested that the matter should be referred to a committee of the whole Council.

The President said he quite concurred in the general remarks made by Dr. Fleming and Professor Walley. He thought the work should be undertaken, and that whatever difficulties arose should be dealt with to the best of their ability. He had not the slightest doubt that almost insurmountable difficulties would be met with. At the same time the Royal College of Veterinary Surgeons ought to feel itself honoured by being asked by the Royal Commission on Horse-breeding and the Royal Agricultural Society to take upon itself the responsibility of laying down certain rules for the guidance of breeders in such cases.

Dr. Fleming moved: "That the Royal College of Veterinary Surgeons undertake the duty which it has been asked to undertake."

Mr. Cartledge seconded the motion.

Mr. James Simpson thought that the Royal College of Veterinary Surgeons was the right body to deal with the subject. If they shirked the task veterinary surgeons would in future be dispensed with.

Professor Brown said that he knew privately that what was thought to be expedient was, that the Council should summon a conference of a number of veterinary surgeons to discuss the matter and decide what was hereditary "unsoundness."

Sir Henry Simpson said that last year, having had the subject brought before him, he ventured, as President of the Royal College of Veterinary Surgeons, to suggest that a conference of veterinary surgeons, stewards of horse shows, and exhibitions, should be held. People were getting weary of the diversity of opinions that had been expressed. The differences were not on matters of fact, but as to the value which should be attached to certain defects. He quite agreed with Dr. Fleming's suggestion, which affirmed the principle that the College should undertake the duty.

The motion "That the College undertakes the duties as requested by the two societies" was carried unanimously.

The next letter was from Professor McQueen tendering his resignation as Examiner in Botany.

On the motion of Mr. Woods, seconded by Mr. Dray, the resignation was accepted.

On the motion of Dr. Fleming, a vote of thanks was passed to Professor McQueen for the services he had rendered to the Royal College of Veterinary Surgeons.

A letter was announced from Mr. W. Hunting, enclosing copy of a new weekly journal for the profession, asking that copies of the report of meetings of the Council might be supplied to him. On the motion of Mr. Wragg, the application was agreed to.

A letter was read from Mr. Dale, dated June 15th, 1888, stating that he had ceased to use the term "Veterinary" in connection with his name.

A Member stated that Mr. Dale's name still appeared in the Directories with the letters M.R.C.V.S. following.

A Member said that for three or four years Dale had been engaged as an office boy. After a time he was entrusted to mix medicines, give balls, and assist in operations. Dale gave out that he was "Mr. F. H. Dale, late assistant to Professor Pritchard, M.R.C.V.S."

A Member stated that on a card issued by a farrier it was stated that the veterinary in attendance was Mr. F. H. Dale. In his opinion it was one of those cases that ought to be made an example of, and he was quite prepared to move that the Solicitor be instructed to prosecute.

After some further discussion it was agreed "That the Solicitor be instructed to enquire into the case, and if he sees good ground for prosecuting to do so."

On the motion of Mr. Barford, seconded by Mr. Cartledge, it was agreed "That in the cases of persons who are to be prosecuted at long distances from London, the Solicitor be empowered to employ local talent."

Dr. Fleming said it was evident that, as time went on, the expenses to which the College would be put in such matters would be very serious. He thought the time had arrived when the Lords of the Privy Council should be asked to allow the fines to go to the College, for by such prosecutions they were protecting not only the profession but the public. In almost every other instance the penalties inflicted on impostors went to the public body which by Charter or Act of Parliament was empowered to prosecute. He would therefore move "That steps be taken to represent to the Lords of the Privy Council the position of the College with regard to these prosecutions." Professor Walley seconded the motion, which was agreed to.

Sir Frederick Fitzwygram, referring to the horse tax, said that when the bill was first introduced he asked the Chancellor of the Exchequer whether he would give to veterinary surgeons the same privileges as those given to medical men, and the answer was in the affirmative. When the Bill was printed,

however, veterinary surgeons were omitted; and on being reminded of his promise, Mr. Goschen said, "I find that whatever exemptions I make, cause application for a dozen more exemptions on somewhat similar grounds; but if you will put down a motion in the House to exempt veterinary surgeons I have no objection to it. But let it be your act and the act of the House, not mine. Whether I can grant it or not will depend upon the temper and tone of the House; but if there is an expression in favour of the exemption of veterinary surgeons I shall be very pleased to grant it." It appeared to him that the question of success mainly rested on the members of the College using their influence with Members of Parliament, in order to get them to support the motion to exempt veterinary surgeons. If Members who were interested in the profession were asked to give their assistance and to be in the House when the motion came forward, he did not think there would much difficulty about it.

Dr. Fleming considered that one such exemption would pave the way to the removal of the hardship of being liable to be summoned as jurymen.

The President said he was personally very much obliged to Sir Frederick Fitzwygram for bringing the matter before the Council. He should do everything in his power to get his friends in the House of Commons to support Sir Frederick's motion.

A letter from Professor Walley was read, proposing that the power given to the Chairman of the Board of Examiners to exclude obnoxious persons from the Examination Room should be withdrawn.

Professor Walley said that if a teacher were excluded from the Examination Room he had not an opportunity of knowing on what lines the examinations were conducted. Such exclusion should not be for all time.

Dr. Fleming said that he was perfectly sure no Chairman of the Examining Board would exclude any person without consulting his colleagues, and therefore it should be left to the Chairman to decide how long the exclusion should last.

Professor Walley.—Was this matter considered by the Examining Board?

The President.—Unquestionably, and agreed to by the whole Board.

Mr. J. Simpson stated that he had been informed by the Secretary that since the last meeting of Council the right of entrance from the College back yard to the street had been exercised, and workmen had made use of it from June 30th to July 5th.

A Member proposed that the name of Mr. Harland be struck off the Register, he having been convicted at Sunderland and sentenced to six months' hard labour for horse stealing.

The motion was agreed to, twenty-one members of Council being present.

The Secretary read the report of the Finance Committee, which recommended that any Examiner living outside a radius of 100 miles from the place of examination be allowed his first-class travelling expenses.

On the motion of Mr. Dray, seconded by Mr. Wragg, the report was adopted.

Professor Brown, Professor Pritchard, Professor Duguid, Dr. Fleming, and Mr. Cox were nominated as Examiners for the Fellowship degree.

A ballot was taken, with the result that the following were elected:—Professor Brown, Professor Duguid, and Dr. Fleming.

On the motion of Mr. Cartledge, seconded by Mr. Carter, the Parliamentary Committee were re-elected, with the addition of Sir Henry Simpson.

On the motion of Sir Henry Simpson, seconded by Professor Walley, the Museum Committee, the House and Building Committee, and the Library Committee were amalgamated into one General Purposes Committee.

The former members of those Committees (with the exception of Mr. Harpley) were re-elected, with the addition of Sir Henry Simpson and Mr. Wilson, on the motion of Professor Walley, seconded by Mr. Barford.

On the motion of Mr. Barford, seconded by Mr. Whittle, the Registration Committee was re-elected, with the addition of Sir Henry Simpson and Mr. Wilson.

The Examination Committee (consisting of the whole of Council) and the Bye-Laws Committee (with the addition of Mr. Mulvey) were re-appointed.

The Finance Committee were re-appointed, with the addition of Sir Henry Simpson and Mr. Wilson.

The Dinner Committee were re-appointed, with the addition of Mr. Wilson.

It was agreed that a list of Committees be printed and circulated.

Mr. Wragg gave notice that at the next meeting of Council he would move that a committee be formed to report on the best means of carrying out the suggestion of the Royal Agricultural Society and the Royal Commission as to a conference on "Soundness."

Mr. J. Simpson moved, "That to enable the Registrar to issue a corrected list of existing practitioners who are entitled to have their names entered in the Register No. 3 under the Veterinary Surgeons Act of 1881, he be instructed to obtain the required information under the power given to him by Section 5 of the Veterinary Surgeons Act of 1881; that the necessary inquiries commence forthwith, and that the Registrar be allowed such additional clerical help to enable him to make the necessary investigations as may appear reasonable to this Council."

Dr. Fleming seconded the motion, which was agreed to.

A vote of thanks to the President concluded the proceedings.

North of England Veterinary Medical Association.

The Quarterly meeting of this Association will be held on Friday, August 31st, at the Empress Hotel, Sunderland, at 3 p.m. prompt, when Clement Stephenson, Esq. will introduce for discussion the subject of "Hereditary Unsoundness."

G. R. Dudgeon, Hon. Sec.

CORRESPONDENCE.

Communications for the Editor to be addressed 20 Fulham Road, S.W.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

TETANUS.

SIR,

I ask for a few lines to refer to Mr. Kidd's article in last week's "Record." One of your correspondents in that same number recommends well-written articles as being valuable to the country Vet.

Now as a country Vet., and one who would support a weekly journal, I would suggest that such articles as Mr. Kidd's case of Tetanus are of no value. Is there a Veterinary Surgeon who can learn anything from such cases. We learn from the first paragraph the farmer's pathology of the case, viz: that this particular foal caught cold from sporting about. I would respectfully suggest that this is absurd.

Is there a breeder of colts in the United Kingdom who would accept the idea of a foal losing its life or even suffering inconvenience from any weather in June month. My district is one terribly afflicted with tetanus. Half my cases of scrotal hernia that I operate upon die of tetanus, and at least one-third of cases of umbilical hernia which are ligatured, consequently I interfere only with the worst cases. Setons too, I have been obliged to abolish for the same reason. I passed a piece of fine whipcord over two cases of bone spavin a few years ago, and ten days afterwards I had to remove them and place the horses, or rather horse and pony, in slings, and treat for weeks for violent attacks of tetanus.

I state these facts to show that I have had some experience of the disease in question, and without the slightest hesitation I say that neither Mr. Kidd, who made the post-mortem, nor any Vet. who has read his article, has the slightest notion as to the origin or cause of the attack of tetanus in his patient, and I expect that many country practitioners will join me in regretting that instead of our colts with tetanus taking large doses of medicine without any difficulty, they will resist with great obstinacy and frequently rear and fall backwards, trembling and perspiring with excitement. In fact, I have not found colts to tolerate the administration of drugs in tetanus except in the form of a stiff paste, or electuary, very quietly pushed up inside the angle of the lips; but the excitement produced even by this means is injurious, and I believe that if practitioners would honestly question themselves they would admit that they cannot give names and addresses of clients who have had severe cases of tetanus recover where the drugs had to be administered by force similar to that used in other diseases. Horses with mild attacks that will continue to take sufficient nourishment and drugs in the form of slops for eight or ten days will pull through, and in a few weeks lose all their stiffness; but those horses severely attacked will die. In conclusion, I would like to ask Mr. Kidd why thousands of other foals in the United Kingdom were not affected by the weather last June. Being a firm believer in the principles of evolution, I consider it fortunate that this voracious little sport did not survive to propagate its fatal propensities in its offspring.

JOHN STEPHENS, M.R.C.V.S.,

PENZANCE, CORNWALL.

ABSORPTION OF EXOSTOSES ON THE METACARPAL BONES.

SIR,

On reading Mr. Hurndall's contribution to your issue of August 18th, on the above subject, one or two points occurred to me which I have some curiosity to hear explained. Without denying Hahnemann's therapeutical law of Like curing like, I think, in the first place, if Mr. Hurndall had experimented on, say 20 or 30 subjects, it would have afforded more trustworthy information on this subject than is given by the solitary case he details. In the second place, if this drug has such a powerful effect in absorbing bony tissue, how does he explain it not attacking the skeleton generally? and why should its action be confined to the desired spot? As to the why or how the splints alluded to were absorbed I give no opinion, but at present I do not see such a well-defined connection between the use of Hecla lava and their disappearance as I should naturally wish. I know that there are thousands of things in this world which our philosophy does not at present dream of, and this may be a discovery.

Yours faithfully,

E. A. HOLLINGHAM, M.R.C.V.S.,

TUNBRIDGE WELLS.—Aug. 22nd, 1888.

A communication from Mr. R. H. Dyer, of Limerick, is unavoidably held over till next week.

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